IN THE UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA

FLEMMING KRISTENSEN, individually and on behalf of a class of similarly situated individuals, Plaintiff, v. CREDIT PAYMENT SERVICES INC., a Nevada corporation, f/k/a MYCASHNOW.COM INC., ENOVA INTERNATIONAL, INC., an Illinois corporation, PIONEER FINANCIAL SERVICES, INC., a Missouri corporation, LEADPILE LLC, a Delaware limited liability company, and CLICKMEDIA LLC d/b/a NET1PROMOTIONS LLC, a Georgia limited liability company, Defendants.	Case No. 2:12-CV-00528-APG (PAL) CLASS ACTION **DECLARATION OF SHAWN C. DAVIS IN SUPPORT OF PLAINTIFF'S MOTION FOR CLASS CERTIFICATION** Judge: Hon. Andrew P. Gordon Magistrate: Hon. Peggy A. Leen

I, SHAWN C. DAVIS, hereby aver, pursuant to 28 U.S.C. § 1746, that I have personal knowledge of all matters set forth herein unless otherwise indicated, and would testify thereto if called as a witness in this matter.

1. I am an adult over the age of 18 and a resident of the State of Illinois. I am a computer forensic investigator with Edelson LLC. I hold a master's degree from the Illinois Institute of Technology in the field of Information Technology & Management with a specialization in Computer and Network Security. During my degree program, I completed coursework in Data Modeling and Database Security.

2. I have been employed in the Information Technology industry since 2006 primarily holding positions as a consultant and network security analyst. Industry certifications held include the GIAC Certified Incident Handler (GCIH) and CompTIA's A+, Network+, and Security+. I have presented personal research on information security and digital forensic topics at several conferences as well as to the FBI. I am fully competent to make this Declaration, and make such Declaration in support of Plaintiff's Motion for Class Certification.

3. I was initially provided with a spreadsheet received from Click Media on August 22, 2013, containing user registration data. Also provided were several spreadsheets with mobile phone Short Message Service (SMS) metadata received from T-Mobile. I was asked by John Ochoa, an attorney at Edelson LLC, to 1) determine the number of unique recipient telephone numbers on three T-Mobile spreadsheets identified as mobile numbers 330-564-6316, 808-989-5389, and 209-200-0084; and 2) match every instance of where a recipient mobile number from the T-Mobile spreadsheets appear in the Click Media database subsequent to such transmission. Scraping,

matching, and counting of the data contained in these spreadsheets was performed in order to aid Edelson attorneys in analysis.

Tasks:

4.   The Click Media spreadsheet, named ScrapedData.xlsx, contained 15 columns and 134,946 rows. The column headings were: First_Name, Last_Name, Best_Phone, Work_Phone, Ref_1_Phone, Ref_2_Phone, Mobile_Phone, Home_Phone, Active_Military, Address_1, City, State, Email, URL, and Date_Created. The Date_Created column contained the timestamps of when users registered in the database.

5.   Each T-Mobile spreadsheet contained SMS transmissions for a single outgoing mobile number. These spreadsheets contained 8 columns and varying numbers of rows. The interesting columns were Date_Of_Call (PDT), Called Number, and FP Call Direction.

6.   My first task involved matching every instance of where an originating mobile number from the T-Mobile data sent an SMS text to a recipient mobile number that was used to register in the Click Media database.

7.   The interesting columns in each T-Mobile spreadsheet were filtered so that only the rows containing ORIGINATING in the FP_Call_Direction column were shown. Excel's Sort & Filter utility was used for this purpose. All rows containing the TERMINATING value were deleted. This process was performed for each T-Mobile spreadsheet and the resulting data was saved into new temporary spreadsheets.

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8.   Essentially, every instance of where a "Called Number" from a T-Mobile spreadsheet matched a "Mobile_Number" from the Click Media data needed to be displayed. There were several instances where a T-Mobile number sent an SMS text to a recipient "Mobile_Number" more than once. There were also several instances where a user registered more than once in the Click Media database. In order to accomplish this task, the Click Media data as well as each temporary T-Mobile spreadsheet was imported into a MySQL database so that matches and counts could be performed with the use of SQL queries.

9.   The Click Media data was imported first with the following steps:

    a. A database named TCPA was created in MySQL on a local Linux system.

    b. A table named scrapeddata was created in the TCPA database with each of the column names and types provided.

    c. The load data local infile command was utilized to scrape the Click Media interesting column data and load it into the scrapeddata table.

    d. The commands for the previous three steps were as follows:

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```
mysql -u root -p --local-infile TCPA

CREATE DATABASE TCPA;

USE TCPA;

CREATE TABLE scrapeddata(First_Name CHAR(50),Last_Name CHAR
(50),Best_Phone TEXT(15),Work_Phone TEXT(15),Ref_1_Phone TEXT
(15),Ref_2_Phone TEXT(15),Mobile_Phone TEXT(15),Home_Phone
TEXT(15),Active_Military CHAR(10),Address CHAR(50),City CHAR
(50),State CHAR(10),Email VARCHAR(50),URL VARCHAR
(250),Date_Created DATETIME);

load data local infile '/tmp/scrapeddata.csv' into table
scrapeddata fields terminated by ',' lines terminated by '\n'
(First_Name, Last_Name, Best_Phone, Work_Phone, Ref_1_Phone,
Ref_2_Phone, Mobile_Phone, Home_Phone, Active_Military,
Address, City, State, Email, URL, @date_time_variable) SET
Date_Created = STR_TO_DATE(@date_time_variable, '%c/%e/%y %l:%i
%p');
```

Figure 1: Creation of TCPA database and loading of data into table

10.   The data from each temporary T-Mobile spreadsheet was entered into new

tables using the following steps:

a. Several tables with the naming convention of tmobile(id) were created in

the TCPA database with each of the interesting column names and types

provided.

b. The load data local infile command was utilized to scrape the T-Mobile

interesting column data and load it into the tmobile(id) tables.

c. The commands for the previous two steps were as follows:

```
CREATE TABLE tmobile1(Date_Of_Call_PDT DATETIME,Called_Number
TEXT(15),FP_Call_Direction CHAR(15));

load data local infile '/tmp/3305646316.csv' into table
tmobile1 fields terminated by ',' lines terminated by '\r\n'
(@date_time_variable, Called_Number, FP_Call_Direction) SET
Date_Of_Call_PDT = STR_TO_DATE(@date_time_variable, '%m/%e/%Y
%h:%i:%s %p');
```

Figure 2: Adding T-Mobile data into new tables in TCPA database

11.   Now that all of the Click Media and T-Mobile data was contained in the

MySQL database, SQL queries could be applied. A SQL SELECT statement

was used to select all of the data from the scrapeddata table and an individual

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tmobile(id) table where the scrapeddata Mobile_Phone column matched the

tmobile(id) Called_Number column. This process was iterated for each T-

Mobile table and the matches were printed into new temporary .csv files:

```
SELECT * FROM scrapeddata,tmobile1 WHERE
scrapeddata.Mobile_Phone=tmobile1.Called_Number INTO OUTFILE
'/tmp/test1.csv' FIELDS TERMINATED BY ',' LINES TERMINATED BY
'\n';
```
Figure 3: SQL select statement for matching

12.   Each of the temporary T-Mobile .csv files were then opened in Excel and

sorted by Mobile_Number. These files were then saved in the .xlxs format

with the naming convention scrapeddata+(originating number).xlxs. There

were instances of a user registering with Click Media more than once, as well

as instances of mobile numbers receiving SMS text messages more than once.

The spreadsheets with this naming convention show all of such instances and

therefore should not be used to count the total number of unique occurrences.

13.   In order to provide spreadsheets of only the unique matches between the T-

Mobile and Click Media data, the "Remove Duplicates" function of Excel was

utilized. Each scrapeddata+(originating number).xlxs spreadsheet was opened

and all columns selected. The "Remove Duplicates" function dialog box was

opened and only the Mobile_Phone column was selected. Once the function

completed, the spreadsheet contained only unique matches. The spreadsheets,

now free of duplicates, were saved and the naming convention of

scrapeddata+(originating number) – Unique by Mobile_Phone.xlxs was used.

14.   The next task was to create new spreadsheets containing only instances of

users registering in the Click Media database after receiving an SMS text

message originating from one of the T-Mobile numbers from the spreadsheets

we were provided. The Date_Created column from the Click Media data was in Coordinated Universal Time (UTC) and the Date_Of_Call_PDT column from the T-Mobile data was in Pacific Daylight Time (PDT). PDT is seven hours behind UTC. Therefore, the Date_Of_Call_PDT column in the T-Mobile tables in the MySQL database needed to be converted seven hours ahead to UTC and that conversion copied into a new column. The following steps were used with each T-Mobile table:

a.   The time zone tables from Linux were loaded into the MySQL database.

b.   MySQL was logged into and the TCPA database selected.

c.   A column named Date_Of_Call_UTC was added to the T-Mobile table.

d.   The UPDATE command was utilized to perform the conversion from PDT to UTC and placed the data in the Date_Of_Call_UTC column of the T-Mobile table.

e.   The following figure represents the commands for the previous four steps:

```
mysql_tzinfo_to_sql /usr/share/zoneinfo | mysql -u root -p mysql
mysql -u root -p --local-infile TCPA
USE TCPA;
ALTER table tmobile1 ADD Date_Of_Call_UTC DATETIME;
UPDATE tmobile1 set tmobile1.Date_Of_Call_UTC = CONVERT_TZ
(Date_Of_Call_PDT, '-7:00', '-0:00');
```

Figure 4: Steps to convert timezone from PDT to UTC

15.   The next step involved creating a new .csv file that contained every instance where the user registered in the Click Media database after receiving an SMS text message originating from one of the T-Mobile numbers from the spreadsheets we were provided. The following SELECT statement was used:

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```
SELECT * FROM scrapeddata,tmobile1 WHERE
scrapeddata.Mobile_Phone=tmobile1.Called_Number AND
scrapeddata.Date_Created>tmobile1.Date_Of_Call_UTC INTO
OUTFILE'/tmp/test1_1.csv' FIELDS TERMINATED BY ',' LINES
TERMINATED BY'\n';
```
Figure 5: SELECT statement for matching instances

16.   The previous process was iterated for each T-Mobile table. These .csv files were opened in Excel and after proper formatting were saved with the naming convention scrapeddata+(originating number) – After Text.xlxs. As stated previously, these lists potentially contain duplicates and do not provide an accurate count of unique entries by mobile phone number.

17.   In order to provide spreadsheets of only the unique mobile phone numbers that registered in the Click Media database after receiving an SMS text message from the T-Mobile number data we were provided, the "Remove Duplicates" function of Excel was utilized. Each scrapeddata+(originating number) – After Text.xlxs spreadsheet was opened and all columns selected. The "Remove Duplicates" function dialog box was opened and only the Mobile_Phone column was selected. Once the function completed, the spreadsheet contained only unique matches. The naming convention of scrapeddata+(originating number) – After Text – Unique.xlxs was used for these new spreadsheets.

18.   My next task was to provide accurate counts for two scenarios involving Click Media registration data as well as data from T-Mobile involving three specific originating numbers:

19.   Scenario 1: The total number of unique recipient phone numbers that received an SMS text message.

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20.   The following SELECT statement was used for each of the three originating

T-Mobile numbers:

```
SELECT count(distinct Called_Number) from tmobile1 where
FP_Call_Direction = 'ORIGINATING';
```

Figure 6: SELECT statement to identify unique count for Scenario 1

21.   Scenario 2: The total number of unique recipient phone numbers that received

an SMS text message prior to being used to register in the Click Media

database.

22.   The following SELECT statement was used for each of the three originating

T-Mobile numbers:

```
SELECT count(distinct Mobile_Phone) FROM scrapeddata,tmobile1
WHERE scrapeddata.Mobile_Phone=tmobile1.Called_Number AND
scrapeddata.Date_Created>tmobile1.Date_Of_Call_UTC;
```

Figure 7: SELECT statement to identify unique count for Scenario 3

Results:

23.   The following results are based on the Click Media registration data and the

T-Mobile data from the following originating phone numbers: 330-564-6316,

808-989-5389, and 209-200-0084.

24.   Counts are provided for the following two scenarios:

Scenario 1:

25.   The total number of unique recipient phone numbers that received an SMS
text message:

Table 1

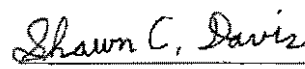| Originating Phone Number	Unique Recipient Phone Number Totals
330-564-6316	25,091
808-989-5389	51,915
209-200-0084	21,770

Scenario 2:

26.   The total number of unique recipient phone numbers that were used to register
in the Click Media database after receiving an SMS text message:

Table 2

Originating Phone Number	Unique Recipient Phone Number Totals – Registered in Click Media Database After Receiving SMS Text
330-564-6316	491
808-989-5389	984
209-200-0084	1,895

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 31, 2013.

Shawn C. Davis

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